

August 11, 1965

Mr. Claude Koprowski
World Health Organization
Palais des Nations
Geneva, Switzerland

Dear Claude,

I was delighted to hear from you and what you have settled into.

Yes, I think one must be extremely critical of any of the claims that have been forwarded so far for a significant association between season of birth and intellectual performance. I enclose an old unpublished note of my own on the subject. The main thing I would draw your attention to is the correlation between habit of birth month and father's occupation which suggests that there is a considerable socio-economic stratification in these habits. We have been doing some further work along these lines but can add very little more to the picture except to reaffirm the validity of this criticism. We have been trying to make sense out of what data we could get to try to relate these cycles with other class-specific cycles, such as marriage, but so far we do not have enough material to draw a comprehensive picture. This is hardly to say that there is no relationship between season of birth and performance and there are many reasons why one might expect that there would be one. However, it does suggest that it will be very difficult to obtain conclusive evidence on this point.

Besides my enclosure, I would also refer you to a recent study by Lander in *Acta Genetica Scandinavica*, Vol. 14, p. 265, 1964, "Season of Birth and Mental Deficiency".

Congenital defect is probably a different story. The work by Record, Smith and Edwards which has appeared from time to time in the *British Journal of Social and Preventive Medicine* on seasonality of spina bifida and similar neurological defects is probably quite good. It is also rather mysterious with respect to natural etiology. Furthermore, you may have noticed a paper by Puck some few weeks ago in *Science* which recites the clustering of chromosomal abnormalities which could be regarded as a seasonal effect. I am rather mystified what to make of this story just at the moment, but it certainly deserves very close follow up. There is actually quite a lot of material on this subject and I think you would find it very useful if you could consult the *Science Citation Index* for 1964 and 1965 in searching out this material. The problem we are talking about is just one of those interdisciplinary issues that are so hard to track down by almost any other means.

Cordially,

Joshua Lederberg
Professor of Genetics

CLAUDE
KOPROWSKI